

Name: _____

at1110paper__practice__test (v18)

1. Solve the equation.

$$7x^2 - 21x + 25 = 4x^2 - 2x - 3$$

$$3x^2 - 19x + 28 = 0$$

$$(3x - 7)(x - 4) = 0$$

$$x = \frac{7}{3} \quad x = 4$$

2. Expand the following expression into standard form.

$$(3x - 2)(5x - 9)$$

$$15x^2 - 27x - 10x + 18$$

$$15x^2 - 37x + 18$$

3. Expand the following expression into standard form.

$$(5x - 6)^2$$

$$25x^2 - 30x - 30x + 36$$

$$25x^2 - 60x + 36$$

4. Expand the following expression into standard form.

$$(5x - 3)(5x + 3)$$

$$25x^2 + 15x - 15x - 9$$

$$25x^2 - 9$$

5. Solve the equation with factoring by grouping.

$$15x^2 + 20x + 6x + 8 = 0$$

$$(5x + 2)(3x + 4) = 0$$
$$x = \frac{-2}{5} \qquad x = \frac{-4}{3}$$

6. Solve the equation.

$$(5x + 2)(7x - 9) = 0$$

$$x = \frac{-2}{5} \qquad x = \frac{9}{7}$$

7. Factor the expression.

$$36x^2 - 49$$

$$(6x - 7)(6x + 7)$$

8. Factor the expression.

$$x^2 + 7x - 18$$

$$(x - 2)(x + 9)$$